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Docket No.:

Declaration, Power of Attorney and Petition

WE (I) the undersigned inventor(s), hereby declare(s) that:

My residence, post office address and citizenship are as stated below next to my name.

We (I) believe that we are (I am) the original, first, and joint (sole) inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**ATOMIC LAYER DEPOSITION METHOD AND SEMICONDUCTOR DEVICE
FABRICATING APPARATUS HAVING ROTABLE GAS INJECTORS**

the specification of which

☐ is attached hereto.

☐ was filed on _____

as Application Serial No. _____

and amended on _____

We (I) hereby state that we (I) have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

We (I) acknowledge the duty to disclose information known to be material to the patentability of this application as defined in Section 1.56 of Title 37 Code of Federal Regulations.

We (I) hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT International application having a filing date before that of the application on which priority is claimed. Prior Foreign Application(s)

Application No.	Country	Day/Month/Year	Priority Claimed	
2000-46216	KOREA	09 August 2000	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
_____	_____	_____	<input type="checkbox"/> Yes	<input type="checkbox"/> No

We (I) hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below.

(Application Number)

(Filing Date)

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We (I) hereby claim the benefit under 35 U.S.C. §120 of any United States application(s), or §365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

Application Serial No.	Filing Date	Status (pending, patented, abandoned)
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And we (I) hereby appoint Thomas J. Ring, Reg. No.29,971; Timothy J. Keefer, Reg. No. 35,567; Annette M. McGarry, Reg. No.34,671; Gary R. Gillen, Reg. No.35,157; David A. Frey, Reg. No.43,618; Doug S. Rupert, Reg. No.44,434; Dennis K. Scheer, Reg. No.39,356; Judie D. Dziezak, Reg. No.40,599; Mark D. Kelly, Reg. No.39,467; Susan L. Lukasik, Reg. No.35,261 and as our (my) attorneys, with full powers of substitution and revocation, to prosecute this application and to transact all business in the Patent Office connected therewith; and we (I) hereby request that all correspondence regarding this application be sent to Thomas J. Ring, Registration No.29,971, Wildman, Harrold, Allen&Dixon, 225 West Wacker Drive, Chicago, Illinois 60606-1229, direct telephone number (312)201-2524, firm telephone number (312)201-2000, fax number (312)201-2555.

We (I) declare that all statements made herein of our (my) own knowledge, are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Chul-Ju HWANG

NAME OF FIRST SOLE INVENTOR

Signature of Inventor

Date

Kyung-Sik SHIM

NAME OF SECOND JOINT INVENTOR

Signature of Inventor

Date

Residence: 320/1601 Hanyangtown, Sohyon
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463-050, Republic of Korea

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Residence: 113/902 Hyundai apt., 1932-6
Unhaeng1-dong, Joongwon-gu, Sungnam-shi,
Kyonggi-do, 462-151, Republic of Korea

Citizen of: Republic of Korea

Post Office Address: Same As Above



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OCTOBER 17, 2001

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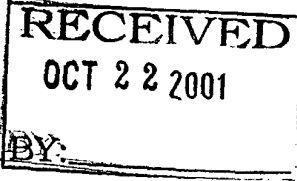
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TIMOTHY J. KEEFER
225 WEST WACKER DRIVE
CHICAGO, IL 60606-1229



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UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/08/2001

REEL/FRAME: 012067/0344
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

HWANG, CHUL-JU

DOC DATE: 08/07/2001

ASSIGNOR:

SHIM, KYUNG-SIK

DOC DATE: 08/07/2001

ASSIGNEE:

JUSUNG ENGINEERING CO., LTD.
49 NUNGPYONG-RI
OPO-UP, KWANGJU-SHI, KYONGGI-DO
, REPUBLIC OF KOREA 464-892

SERIAL NUMBER: 09927004
PATENT NUMBER:

FILING DATE: 08/08/2001
ISSUE DATE:

DOROTHY BASMA, PARALEGAL
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS



101814075

To the Honorable Commissione

attached original documents or copy thereof.

Name of conveying party(ies):

Chul-Ju HWANG

Kyung-Sik SHIM

2. Name and address of receiving party(ies):

Name:

Jusung Engineering Co., Ltd.

Address:

49 Nungpyong-ri,
Opo-up, Kwangju-shi, Kyonggi-do
464-892, Republic of KoreaAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

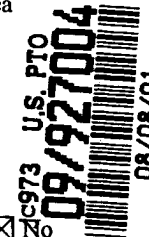
08/08/01

3. Nature of Conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other

Execution Dates: August 7, 2001

August 7, 2001

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution dates of the application are: August 7, 2001

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

09/927004

5. Name and address of party to whom correspondence concerning document should be mailed:

Timothy J. Keefer

Wildman, Harrold, Allen & Dixon

225 West Wacker Drive

Chicago, IL 60606-1229

Docket No.: TJK/189/L.W.

6. Total number of applications and patents involved: 17. Total fee (37 CFR 3.4):..... \$ 40.00☒ Enclosed☐ Authorized to be charged to deposit account

8. Deposit account number:

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Timothy J. Keefer

Name of Person Signing

Reg. No. 35567

Signature

Date

8/8/01

OMB No. 0651-0011 (exp. 4/94)

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Washington, D.C. 20231

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Docket No.:

Assignment of Application

WHEREAS, I(WE) Chul-Ju HWANG and Kyung-Sik SHIM

, respectively,

have invented certain new and useful improvements in:

**ATOMIC LAYER DEPOSITION METHOD AND SEMICONDUCTOR DEVICE
FABRICATING APPARATUS HAVING ROTATABLE GAS INJECTORS**

for which an application for Letters Patent was executed on _____

(Application No. _____, Filed _____), and

WHEREAS, JUSUNG Engineering Co., Ltd

(hereinafter referred to as "ASSIGNEE") having a place of business at:
49 Nungpyong-ri, Opo-up, Kwangju-shi, Kyonggi-do, 464-892, Republic of Korea

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behalf of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

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Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Wildman, Harrold, Allen & Dixon, Attorneys at Law, 225 West Wacker Drive, Suite 3000, Chicago, Illinois 60606 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: 2001.8.7

C. J. Hwang
(Signature of Inventor)

Chul-Ju HWANG

Date: 2001.8.7

K. S. SHIM
(Signature of Inventor)

Kyung-Sik SHIM

Wildman, Harrold, Allen & Dixon
225 West Wacker Drive, Suite 3000
Chicago, Illinois 60606